

SLOW-MOVING VEHICLES

GUIDE TO SHARING THE ROAD



VERSION 2

INTRODUCTION

Drivers in New York State (NYS) must use caution when sharing the road with slow-moving vehicles (SMVs) to avoid crashes, which are often fatal.

SMVs are all vehicles that are designed to operate at less than 40 mph or greater. They are most commonly the following:

- Tractors
- Self-propelled agricultural/farm equipment
- Road construction and maintenance machinery
- Animal-powered vehicles

Other vehicles that might also be traveling slowly include:

- Vehicles in funeral processions
- Parade vehicles
- Vehicles giving hayrides
- Off-road vehicles such as utility-terrain vehicles (UTVs) and all-terrain vehicles (ATVs)

QUICKNOTE

It's extremely important that new drivers are educated about SMV safety.

SMV Season

Motorists will generally encounter more agricultural SMVs from late April through mid-October, when farmers are planting and harvesting crops.

There may be a smaller presence of all types of SMVs during other times of the year, but in some communities SMVs such as animal-drawn vehicles are on the road year-round.



Also, these animal-drawn vehicles are encountered more frequently on Saturday evenings and Sundays.

SMV References

Laws and regulations can be accessed through NYS Vehicle and Traffic Law (VTL) §375, Section 36, NYCRR Title 15, Subchapter D, Part 43 and NYCRR Title 15, Subchapter E, Part 68.

For more details about SMV requirements to use public roads and highways, flip to the "Agricultural Vehicles" and the "Animal-Drawn Vehicles" tabs.

QUICKNOTE

There is no religious exemption to the VTL.



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EMBLEMS AND SYMBOLS

SLOW-MOVING VEHICLE EMBLEM

The slow-moving vehicle emblem (SMVE), as developed by the American Society of Agricultural and Biological Engineers:

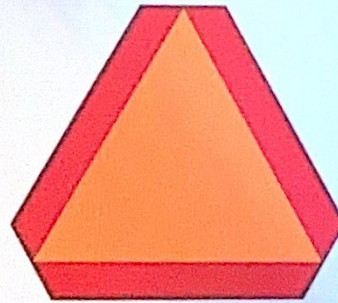
Shape: triangle

Height: 14 inches

Width: 16 inches

Center: fluorescent orange
equilateral triangle

Border: reflective dark red



NYS law requires vehicles that are designed to travel at less than 40 mph on a public highway have an SMVE installed as follows:

- Mounted point-up, perpendicular to the direction of travel.
- Placed in the middle of the back end, unobscured. If the SMVE can't be centered, mount it left of the center line but not over or beyond the left edge of the vehicle.
- Located two to six feet above the road, measured at the bottom edge of the emblem.
- Mechanically fastened (using hardware or adhesives), sturdily supported and secured.

Ref: 15 CRR-NY 68.5



SMVE Rules

The SMVE must be:

- Kept clean.
- Visible from all distances 600 feet to 100 feet away, in daylight or as seen with high beams.
- Replaced when faded.

Ref: 15 CRR-NY 68.3 (c)

QUICKTIP

To keep the SMVE clean and undamaged, some agricultural workers have their sign on a pipe or post. They remove it when they go into the fields and put it back on the tractor or implement when they get back on the roadway.

Implements in Tow

Under the NYS Vehicle and Traffic Law § 375, Section 36(b)(i), the SMVE needs to be displayed separately on the farm machinery and each implement in tow.



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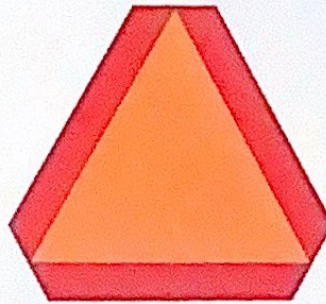
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Other Information About the SMVE

- If the vehicle bearing the SMVE is being transported by another vehicle at a speed of 40 mph or greater, the SMVE must be covered.
- The use of the SMVE is required in addition to any lighting devices, flags or other equipment required by law. It does not replace warning devices such as tail lamps, reflectors, flashing lights, warning flags or flares.
- The SMVE must not be used as a clearance marker for wide loads or equipment.

QUICKFACT



The United States Postal Service also requires these orange safety triangles to be displayed on all rural mail delivery vehicles.

Illegal Use of Emblem

It is illegal to put SMVEs on stationary objects such as mailboxes or driveway posts.

Ref: 15 CRR-NY 68.8 (f) and VTL 375 (36)(C)



SPEED IDENTIFICATION SYMBOL

NYS law requiring the speed identification symbol (SIS) became effective on June 26, 2019.

In order to travel on public roads or highways, farm machinery, implements of husbandry, agricultural tractors and other machinery with a top speed greater than 25 mph and less than 40 mph must display an SIS in addition to displaying the SMVE. The SIS reflects the maximum speed at which the vehicle was designed to travel at in miles per hour.

Rules about the SIS:

- The SIS should be displayed next to the SMVE.
- Operators are required to carry documentation from the manufacturer indicating the maximum speed the vehicle was designed to travel at.



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AGRICULTURAL VEHICLES

Agricultural vehicles must fulfill the requirements listed below to travel on public roads and highways. (Vehicle and Traffic Law § 375, Section 36)

SMV Emblem

Each piece of agricultural equipment (farm machinery and implements of husbandry), traveling on a public road or highway at speeds under 40 mph during day or night, whether self-propelled or used in combination, must each **separately** display a slow-moving vehicle emblem (SMVE). Even a piece of equipment in tow needs to have an SMVE on it. (For more information about the SMVE, flip to the "Emblems and Symbols" tab.)

Speed Identification Symbol

High-speed tractors and agricultural equipment/implements must display an appropriate speed identification symbol (SIS), which indicates the maximum speed in miles per hour that the farm equipment is designed to go by its manufacturer. (For more information about the SIS, flip to the "Emblems and Symbols" tab.)

- High-speed agricultural equipment is limited to less than 40 mph while operating on a public road or highway.
- Operators are required to carry documentation from the manufacturer indicating the maximum speed the equipment was designed for.
- If the high-speed power unit is towing an implement rated for more than 25 mph but less than 40 mph, that implement must display an appropriate corresponding SIS and the operator must carry the supporting documentation from the manufacturer.
- The maximum combination ground speed is limited to the lowest specified speed of any towed implement.

- The maximum travel speed of a high-speed power unit, implement or combination is the lowest of any of the following – or in other words, **whichever is the slowest speed:**

- Power unit speed rating as specified by the manufacturer
- Towed implement speed rating as specified by the manufacturer
- Posted roadway speed limit
- Safe operating speed for existing road conditions

Lighting Requirements

Under NYS law, self-propelled agricultural equipment can be operated on public roads and highways after dark (one half hour after sunset up to one half hour before sunrise) and when visibility is reduced to less than 1,000 feet in either direction, regardless of time of day, **only if the vehicle is equipped with the following devices** visible from the front and rear, in good working condition and properly mounted:

1. **Head lamps:** Two white headlights are required on the front at the same level and as far apart as possible.



Lighting Requirements (cont'd)

2. **Tail lamps:** One red tail lamp is required on the rear as far left as possible, as indicated by the arrow in the photo below.



3. **Combined hazard, warning and turn signal lamps:** Two amber lamps at least 42 inches high are required, at the same level and as far apart as possible, and visible from the front and rear. These flashers and turn indicators need to be in good working order. Replace all blown-out bulbs and cracked lenses.



4. Rear reflectors:

Two red reflectors are required, as indicated by the arrow in the photo at right, mounted at the same height on the rear and as far apart as possible. Replace broken reflectors.

Ref: 15 CRR-NY 43.9



QUICKNOTE

These lighting requirements apply only when the agricultural equipment is used on a public road or highway from one half hour after sunset to one half hour before sunrise, or any other time that visibility for a distance of 1,000 feet ahead or behind the agricultural equipment is not clear. **At other times, no lighting is required on agricultural equipment.**



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OPERATION OF AGRICULTURAL EQUIPMENT BY YOUTHS

Hazardous Occupations in Agriculture

Operating a tractor with more than 20 **PTO horsepower** or connecting or disconnecting an implement or any of its parts to or from such tractor is deemed a hazardous occupation in agriculture for youths.

QUICKTERM



PTO horsepower: Power take-off horsepower, or the horsepower a tractor has for running implements.

Additional hazardous occupations in agriculture include operating or working with a corn picker, grain combine, hay mower, forage harvester, hay baler, potato digger, mobile pea viner, trencher, earth mover, forklift or potato combine, as well as other farm tasks not listed here.

- Youths age 16 and older may work in any farm job at any time. Youths 14 or 15 years old can work in agriculture on any farm, but only in nonhazardous jobs.
- Youths of any age may work at any time on any job on a farm owned or operated by their parents.
- Youths age 14 and 15 who hold Certificates of Completion of Training under a 4-H or vocational agriculture training program may work outside school hours on certain equipment for which they have been trained.
- 14- and 15-year-old student-learners enrolled in vocational agricultural programs are exempt from age restrictions placed on certain hazardous occupations when certain requirements are met.
- Farmers employing 14- and 15-year-old youths who have completed 4-H or vocational agriculture training programs must keep a copy of the certificate of completion of training on hand with the youth's records.

Penalties for Violations

Violation of child labor standards may result in fines and possibly criminal charges.

FOR MORE INFORMATION:

U.S. Department of Labor (DOL)—Fact Sheet #40: Overview of Youth Employment (Child Labor) Provisions of the Fair Labor Standards Act (FLSA) for Agricultural Occupations, found at:

www.dol.gov/whd/regs/compliance/whdfs40.pdf

Or call the U.S. DOL: 866-487-9243

New York State Department of Labor—Minimum Wage Order for Farm Workers Including Occupations in Agriculture Particularly Hazardous for the Employment of Children Below the Age of 16, found at: www.labor.ny.gov/formsdocs/wp/CR190.pdf



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ANIMAL-DRAWN VEHICLES

Requirements

Every vehicle drawn by animals shall display on the rear either:

1. A slow-moving vehicle emblem or
2. A lighted lantern with a red lens at least four inches in diameter, the center of such lens to be 42 inches above the ground, the lantern to be near the left edge of the vehicle, and at least 72 square inches of a high-quality white or whitish-gray reflective tape

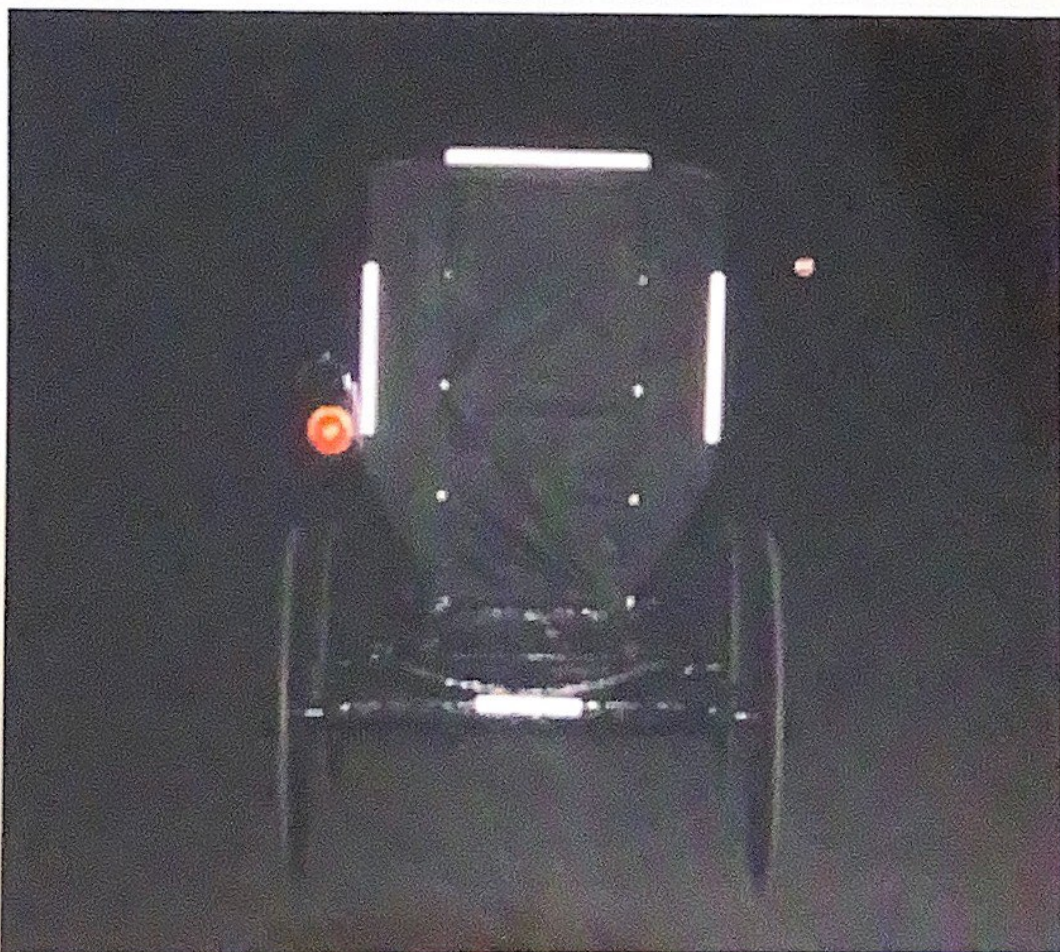
Ref: 15 CRR-NY 68.8



QUICKNOTE



There is no age requirement to operate an animal-drawn vehicle.



ANIMAL-DRAWN VEHICLES

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SEEING HAZARDS

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HOW AND WHY WE SEE HAZARDS

When driving, coming up behind a slow-moving vehicle (SMV) can be very dangerous if you are unprepared for a vehicle in front of you to be going so much slower than you are – and especially if you don't recognize the SMV immediately.

Understanding the basics of how your eyes and brain work together to provide the image you see can help you prepare to encounter potential hazards in the roadway, such as SMVs.

What You Can See

Three factors relative to you influence what you see:

1. **Your eye's ability:** The ability of your eyes (with your specific limitations) to see what is available to be seen
2. **Your brain's ability:** Your brain's specific ability to process information and recognize inputs
3. **Your driving experience/habits:** Experience and habits developed over time give you an idea of what to look for, where to look and how to react

When you look around, your eyes essentially jump from point to point, focusing on a limited area and providing "snapshots" to your brain. These snapshots are then stitched or smoothed together to provide a mental picture that has been corrected for deficiencies in the snapshots. This correction in conjunction with other factors could present a situation where it is possible to look in the direction of something but not actually see it.

If an object is dark in color, has similar color/pattern to its background or has poor contrast it could be missed as a hazard. Lighting or shadowing can also affect the visibility of an object. An example of this is the matte black color of typical animal-drawn vehicles, which makes them hard to see both during the day and at night. Flip to "Issues with Animal-Drawn Vehicles" in the "Sharing the Road with SMVs" tab.

Hazard Perception

These factors help your eyes and brain "see" something:

- Color
- Contrast
- Movement
- Illumination
- Knowledge of a hazard's existence

When drivers encounter a hazard, they typically look at the known hazard or perceived threat. The problem here is what your brain classifies as a hazard or threat. In a dynamic situation, if an object is not perceived as a threat, it may not be considered.

To truly see something, you need to be looking at the right place at the right time.

When a vehicle closes on another from behind, the difference in speed can often cause the distance to be misjudged. Misjudging the distance can affect how much time you have to respond to an SMV in front of you.

Flip to "Closure Collision Time" in the "Sharing the Road with SMVs" tab for a better understanding of closure times and how they might affect you.



THE PROBLEM OF DISTRACTED DRIVING

One of the most important aspects of driving a vehicle is identifying hazards. Your focus and attention on the roadway in front of you is very important. By definition, drivers are distracted! Driving a motor vehicle with all the various controls and divided tasks necessary to operate the vehicle is a distracting task. This is compounded by external distracting tasks, such as operating electronics, conversations, children, pets, eating and drinking beverages, etc. Drivers must also contend with factors that could affect their attention while operating a vehicle, such as mental focus and mental and physical fatigue, in addition to the restrictions offered by dirty windows and mirrors.

Drivers also have to interpret:

- Roadways (lines, markings, condition and hazards).
- Signs.
- Objects on the roadway edge.

Collectively, operating a vehicle in today's world is challenging. Understanding the distractions inherent to vehicle operation will give you the ability to safely operate your vehicle. Reducing or eliminating additional distracting tasks will make you a safer driver, especially when you encounter an SMV.

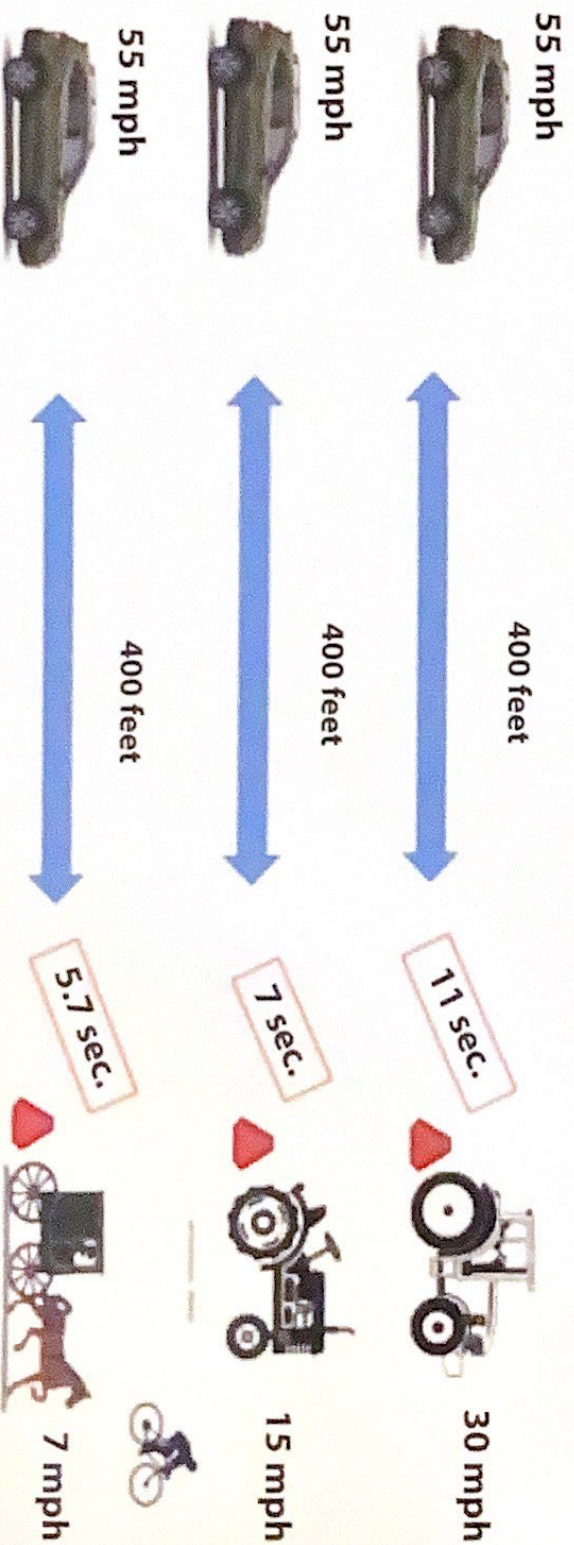
Nighttime Driving and SMVs

At night, objects need to enter the illuminated area of your headlights to be seen. Given the limited effective distance of headlights and the slow speeds of SMVs, drivers need be aware of how little time they will have to react to SMVs. Curves or turns provide additional problems as your headlights are projected straight forward, not the direction you are traveling. Any distraction at night greatly increases your chances of being involved in a collision.



CLOSURE COLLISION TIME

Encountering an SMV while driving presents a unique set of challenges to vehicle operators, primarily due to the much slower speed of the SMV, which could lead to a dangerous situation. About 80% of SMV collisions occur when the SMV is struck from behind. The difference in speed between your vehicle and the SMV means you will often approach the SMV very quickly. The diagram below shows how quickly a vehicle going 55 mph will reach different SMVs that are 400 feet away.



SHARING THE ROAD WITH SMVs

DRIVERS' TIPS

By following the suggestions below, you will not only improve your safety as a motorist, you will also reduce the likelihood of an incident with an SMV. Keep in mind that tractors, farm equipment and animal-drawn vehicles cannot easily maneuver out of the way of traffic or speed up like motor vehicles can.

It is always correct to slow down, increase following distance and stay alert when encountering another vehicle on the road, but especially SMVs. When you encounter an SMV, you should:

- Slow down immediately when you see a vehicle or equipment with an SMV emblem. (Flip to the "Emblems and Symbols" tab.)
- Increase following distance to create a safety cushion.
- Be alert and watch for unexpected turns into fields.
- Drive courteously.
- Pass with care only when it is safe and legal to do so.
 - Be patient, and make sure you have a fully clear view of the road ahead before passing.
 - Follow the legal passing procedures when you are trying to pass an SMV. Remember that it is illegal to pass SMVs in a no-passing zone even though they are traveling at slower speeds.
- Be aware that animal-drawn vehicles may make unanticipated movements.
- Remember that SMV operators may have poor visibility due to loads and equipment in tow. For instance, during haying season, many farmers are unable to see behind them due to a fully loaded wagon of hay bales.
- Be aware that equipment in tow may sway on the road, so use caution when passing.

QUICKNOTE

In certain parts of the state, there are large populations of people who prefer animal-drawn vehicles. Know your traffic environment, patterns and community road and highway users.

ISSUES WITH ANIMAL-DRAWN VEHICLES

Animal-drawn vehicles are struck by other vehicles during the day and at night, on both straight and curved roads and highways, because the motorists do not see them.

The motor vehicle operator is at fault in the majority of animal-drawn vehicle crashes. Animal-drawn vehicles are typically where they should be and doing what they are supposed to do. The real issue is why animal-drawn vehicles are not observed by motorists when they are able to be seen.

Being aware of why animal-drawn vehicles are hard to see can help you keep a sharper lookout for them. These are some of the issues with animal-drawn vehicles, both during the day and at night:

- **Color:** matte black
- **Conspicuity:** poor contrast with background and roadway
- **Speed:** slow-moving
- **Visibility:** dark in color, lack of notable motion

These issues are further compounded when the roadway is wet or if it is raining or snowing.



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Visibility Problems with Animal-Drawn Vehicles

While the operators of some animal-drawn vehicles utilize the slow-moving vehicle emblem (SMVE) with additional lighting, others have elected to follow the minimum requirements set by law.

The following list represents problems associated with these animal-drawn vehicles both during the day and at night.

Daytime	Nighttime
• Matte black color	• Reflective tape does not truly indicate what you are seeing
• No notable color visible	• Dark color - difficult to see even when illuminated
• Limited contrast	• Light reflected off tape back to light source, not vehicle operator
• Limited perceivable motion	• No perceivable motion
• Generally no illuminated light source	• Dim lamp provides limited illumination

Additional factors that complicate visibility at night:

- Color of the asphalt (new, old, dry or wet)
- Height of the animal-drawn vehicle
- Roadway is visible underneath and ahead of vehicle
- Animal-drawn vehicle color – even when illuminated, it's still black
- Vehicle windshields covered with water, snow or roadway spray

